UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/437,580	11/09/99	MACINNIS A	36101/SAH/B6

WM01/0730

ART HASAN
CHRISTIE PARKER & HALE LLP
P O BOX 7068
PASADENA CA 91109-7068

EXAMINER
NGUYEN, K

ART UNIT	PAPER NUMBER
2674	

DATE MAILED: 07/30/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

	Application No.	Applicant(s)
Office Action Summary	09/437,580	MACINNIS ET AL.
	Examiner	**Art Unit**
	Kevin M. Nguyen	2674

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on _09 November 1999_ .

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1-18_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) _1-18_ is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____ .

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _2_ .

4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

U.S. Patent and Trademark Office
PTO-326 (Rev. 04-01)　　　　　　　　　　　Office Action Summary　　　　　　　　　　　Part of Paper No. 2

DETAILED ACTION

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2.   Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Takizawa (US 5,894,300).

3.   As to claim 1, Takizawa teaches a method of horizontally outputs from the left

end of the line (see figure 3A, col. 5, lines 19-21) which includes each data-type store

area 161 has a capacity of one bit in this embodiment as shown in Fig. 3B (col. 4, lines

43-47) corresponding to the claimed blanking out one or more pixels at a beginning of

portion of graphic data. It would have been obvious to a person of ordinary skill in the

art to recognize that Takizawa discloses blanking out one or more pixels as claimed (by

virtue of the operation described at col. 4, lines 43-47).

Takizawa further teaches a first value (e.g., "0") is set if the pixel value of the

pixel corresponding to the particular data-type store area 161 is specified by an RGB

value (that is, it belongs to the display area 151 for the image source 103), as shown in

FIG. 3C (see col. 4, lines 47-51).

4.   As to claims 2 and 4, Takizawa teaches Moreover, in FIG. 1, the first-type image

source 103 has been assumed to specify a pixel value by an RGB value. However, the

present invention can also be applied to a system in which a pixel value is specified by

a "YUV" value rather than an RGB value. The YUV value has a Y value for representing luminance (commonly termed "brightness"), and U and V values for representing color-differences. In this case, a YUV-RGB converter is added to the buffer reader 108 in FIG. 1, for converting the YUV value from the frame buffer 102 to an RGB value (col. 6, lines 19-27).

5.   As to claims 3, 5 and 6, Takizawa teaches each pixel value store area 171 has a capacity of 24 bits in this embodiment, as shown in FIG.4B. If an RGB value is stored as a pixel value, the R value is stored in the upper 8 bits, the G value in the middle 8 bits, and the B value in the lower 8 bits, as shown in FIG. 4C (col. 4, lines 57-61).

6.   As to claim 7, Takizawa teaches a method of horizontally outputs from the right end of each line (see figure 3A, col. 5, lines 19-20) which includes each data-type store area 161 has a capacity of one bit in this embodiment as shown in Fig. 3B (col. 4, lines 43-47) corresponding to the claimed moving a read pointer to a new start address that is immediately prior to a current start address and blanking out one or more pixels at a beginning of portion of graphic data. It would have been obvious to a person of ordinary skill in the art to recognize that Takizawa discloses moving and blanking out one or more pixels as claimed (by virtue of the operation described at col. 4, lines 43-47).

Takizawa further teaches a first value (e.g., "0") is set if the pixel value of the pixel corresponding to the particular data-type store area 161 is specified by an RGB value (that is, it belongs to the display area 151 for the image source 103), as shown in FIG. 3C (see col. 4, lines 47-51).

7.   As to claims 8-12, refer to the previous rejections as applied to claims 2-6.

8.   As to claim 13, Takizawa teaches the color image display apparatus as shown in

fig. 1 and the data type buffer 102, 105 and 106 corresponding the claimed a display

engine and a direct memory access module, the image source 103 and 104

corresponding to the claimed the raw graphic data. It would have been obvious to a

person of ordinary skill in the art to recognize that Takizawa discloses a display engine

and a direct memory access module as claimed (by virtue of the operation described at

fig. 1, col. 3, lines 44-59).

9.   As to claims 14-18, Takizawa teaches the selector controller 113 determines the

type of the pixel value 119 read out by the read controller 112 according to the contents

of the data-type buffer 106. The selector controller 113 generates selector control signal

120 thereby to switch the selector 111 to the frame buffer 102 if it is an RGB value, and

to switch the selector 111 to the look-up table 110 if it is an index value (col. 4, lines29-

35).

10.   Claims 1, 7 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Keene (US 6,005,546).

11.   As to claims 1, 7 and 13, Keene teaches a method of horizontally a display

window to the left and right which includes the display controller of the present invention

may receive YUV data in non-pixel video format from a host CPU and perform the

otherwise CPU intensive task of rasterization within the display controller. In addition,

the display controller may use its internal BITBLIT engine (a feature common in

advanced SVGA display controllers) to copy U and V data from one line in a BITBLIT

operation to adjacent lines, so as to replicate U and V data. A byte mask preserves Y

data on the adjacent lines from being overwritten. At the end of the BITBLIT operation, the display controller generates a signal indicating that the frame buffer has been filled with new data, and thus display controller automatically switches to reading from the newly written frame buffer (see col. 4, lines 50-62). Accordingly, BITBLIT engine corresponds to the graphic engine, and display memory 130 corresponds to the DMA as claimed. It would have been obvious to a person of ordinary skill in the art to recognize that Keene discloses a method of horizontally a display window to the left and right, and a display engine and a direct memory access module as claimed (by virtue of the operation described at fig. 5 and 6, col. 7, lines 18-67 to col. 8, lines 1-67).

Conclusion

12.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892 form.

13.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin M. Nguyen whose telephone number is 703-305-6209. The examiner can normally be reached on MON-FRI from 9:00-5:00 with alternate Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard A Hjerpe can be reached on 703-305-4709. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-306-0377 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the receptionist whose telephone number is 703-306-

0377.

Kevin M. Nguyen
Examiner
Art Unit 2674

KN
July 26, 2001

RICHARD HJERPE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600